REMARKS/ARGUMENTS

Claims 10-28 are pending in this application.

Claims 10, 11, 20, and 21 were rejected under 35 U.S.C. § 102(b) as being anticipated by Wang et al. (U.S. 6,863,943). Claims 12-19 and 22-28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang et al. in view of Tanabe et al. (U.S. 6,735,230). Applicant respectfully traverses the rejections of Claims 10-28.

Claim 10 recites:

> A semiconductor device comprising:
> **a single crystal substrate primarily including zinc oxide and having a zinc-polar surface and an oxygen-polar surface**; and
> **at least one layer of thin film primarily including zinc oxide disposed on the zinc-polar surface**. (emphasis added)

Applicant's Claim 20 recites features and method steps that are similar to the features recited in Applicant's Claim 10, including the above-emphasized features.

With the unique combination and arrangement of features and method steps recited in Applicant's Claims 10 and 20, including the features of "a single crystal substrate primarily including zinc oxide and having a zinc-polar surface and an oxygen-polar surface" and "at least one layer of thin film primarily including zinc oxide disposed on the zinc-polar surface," Applicant has been able to provide a semiconductor device, which is provided with a ZnO thin film having excellent surface smoothness and which has excellent crystallinity and excellent electric characteristics, and a method for manufacturing the semiconductor device. (see, for example, the first full paragraph on page 5 of the Substitute Specification).

The Examiner alleged that Wang et al. teaches all of the features recited in Applicant's Claims 10 and 20. Particularly, the Examiner alleged that col. 5, line 64 to col. 6, line 26 of Wang et al. teach a single crystal substrate primarily including zinc oxide and having a zinc-polar surface and an oxygen-polar surface, and at least one layer of thin film primarily including zinc oxide disposed on the zinc-polar surface. Applicant respectfully disagrees.

Wang et al. is directed to semiconducting oxide nanostructures. Lines 5 and 6 of col. 6 of Wang et al. disclose that the nanoring is a single crystalline structure, and lines, 19-23 of col. 6 of Wang et al. disclose, "An exemplary embodiment of the nanoring includes a polar surface dominated zinc oxide nanobelt. The zinc oxide nanobelt includes polarized ±(0001) facets and, in particular, the zinc oxide nanobelt has an interior (0001)-Zn surface and an exterior ±(0001)-O surface."

Wang et al. is directed to an entirely different semiconductor structure than the present invention, and Wang et al. clearly fails to teach or suggest **the combination** of a single crystal substrate primarily including zinc oxide and having a zinc-polar surface and an oxygen-polar surface, **and** at least one layer of thin film primarily including zinc oxide disposed on the zinc-polar surface. Particularly, although Wang et al. teaches a nanobelt having a zinc-polar surface (interior surface) and an oxygen-polar surface (exterior surface), Wang et al. certainly fails to teach or suggest a thin film primarily including zinc oxide disposed on the zinc-polar surface as recited in Applicant's Claim 10, and similarly in Applicant's Claim 20.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of Claims 10 and 20 under 35 U.S.C. § 102(e) as being anticipated by Wang et al.

The Examiner relied upon Tanabe et al. to allegedly cure deficiencies of Wang et al. However, Tanabe et al. clearly fails to teach or suggest the features of "a single crystal substrate primarily including zinc oxide and having a zinc-polar surface and an oxygen-polar surface" and "at least one layer of thin film primarily including zinc oxide disposed on the zinc-polar surface" as recited in Applicant's Claim 10, and similarly in Applicant's Claim 20. Thus, Tanabe et al. fails to cure the deficiencies of Wang et al. described above.

Accordingly, Applicant respectfully submits that Wang et al. and Tanabe et al., applied alone or in combination, fail to teach or suggest the unique combination and

arrangement of features recited in Applicant's Claim 10, and similarly in Applicant's Claim 20.

In view of the foregoing remarks, Applicant respectfully submits that Claims 10 and 20 are allowable. Claims 11-19 and 21-28 depend upon Claims 10 and 20, and are therefore allowable for at least the reasons that Claims 10 and 20 are allowable.

In view of the foregoing remarks, Applicant respectfully submits that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

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/Christopher A. Bennett #46,710/
Attorneys for Applicant

KEATING & BENNETT, LLP
8180 Greensboro Drive, Suite 850
Tyson's Corner, VA 22102
Telephone: (703) 637-1480
Facsimile: (703) 637-1499

Joseph R. Keating
Registration No. 37,368

Christopher A. Bennett
Registration No. 46,710